

CLAIMS

1. A hybrid drive system for a vehicle, comprising:

a transmission 2 for changing rotation of an input shaft to transmit the changed rotation from an output shaft to wheels;

a first clutch 3 to connect and disconnect power transmission between an output shaft of an engine 1 and the input shaft of the transmission 2;

a rotating electric machine 4 to serve as both a motor and an electric generator;

a second clutch 30 to connect and disconnect power transmission between an input/output shaft of the rotating electric machine 4 and the input shaft of the transmission 2;

a storage device 9 to store electric power supplied from the rotating electric machine 4; and

a second clutch control unit 10 to perform control of a rotational speed of the rotating electric machine 4 when the second clutch 30 is connected, wherein:

the second clutch control unit 10 connects the second clutch 30 after a difference in speed between the rotational speed of the rotating electric machine 4 and a rotational speed at the transmission side falls within a permissible range.

2. The hybrid drive system for a vehicle according to claim 1, wherein:

the second clutch control unit 10 switches the control of the rotational speed

of the rotating electric machine 4 to a torque control when the second clutch 30 is connected.

3. The hybrid drive system for a vehicle according to claim 1, further comprising:

a rotation transmission mechanism 5 disposed between the input/output shaft of the rotating electric machine 4 and the input shaft of the transmission 2, wherein:

the second clutch 30 is disposed between the rotating electric machine 4 and the rotation transmission mechanism 5.

4. The hybrid drive system for a vehicle according to claim 1, further comprising:

a rotation transmission mechanism 5 disposed between the input/output shaft of the rotating electric machine 4 and the input shaft of the transmission 2, wherein:

the second clutch 30 is disposed between the rotation transmission mechanism 5 and the input shaft of the transmission 2.

5. The hybrid drive system for a vehicle according to claim 1, wherein:

the storage device includes an electric double layer capacitor.